

WHAT IS CLAIMED IS:

1. A dual-frequency antenna, directly printed onto a printed circuit board, comprising:
a dielectric substrate;
5 a coplanar wave guide wire, printed on a side of said dielectric substrate and using one end as a signal input end;
a ground metal surface; printed onto a surface on the same side of said coplanar wave guide wire and at a position corresponding to the periphery of said coplanar wave guide wire, and said ground metal surface keeping a specific
10 distance from said coplanar wave guide wire; wherein another end of said coplanar wave guide wire being extended outside said ground metal surface and having a radiating member extended out from a side along the direction of its longitudinal axis for receiving a first operating frequency and a meandered conductive wire extended out from another side at the end of said longitudinal axis;
15 and another radiating member being extended out from the end of said meandered conductive wire for receiving a second operating frequency.
2. The dual-frequency antenna of claim 1, wherein said two radiating members are separated on two sides by said meandered conductive wire.
3. The dual-frequency antenna of claim 2, wherein said two radiating members are
20 separated and parallel to each other.
4. The dual-frequency antenna of claim 3, wherein said two radiating members are separated and parallel to said ground metal surface.
5. A dual-frequency antenna, fixed on an edge of a printed circuit board, comprising:
25 a coplanar wave guide wire, printed on a side of a first dielectric substrate and using one end as a signal input end;
a ground metal surface; printed onto a surface on the same side of said coplanar wave guide wire and at a position corresponding to the periphery of said coplanar wave guide wire, and said ground metal surface keeping a specific

- distance from said coplanar wave guide wire;
a second dielectric substrate, fixed on a side of said printed circuit board, having
a conductive wire printed onto one side, and one end of said conductive wire
being coupled to another end of said coplanar wave guide wire, another end of
said conductive wire extending along the direction perpendicular to said ground
metal surface, a radiating member extended out from the direction of the
longitudinal axis of said conductive wire, a meandered conductive wire extended
out from another side at an end of said conductive wire, and another radiating
member extended from an end of said meandered conductive wire.
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- 10 6. The dual-frequency antenna of claim 5, wherein said two radiating members are
separated on two sides by said meandered conductive wire.
7. The dual-frequency antenna of claim 6, wherein said two radiating members are
separated and parallel to each other.
8. The dual-frequency antenna of claim 7, wherein said two radiating members are
separated and parallel to said ground metal surface.
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9. The dual-frequency antenna of claim 8, wherein said second dielectric substrate
is fixed onto an edge of said printed circuit board.
10. The dual-frequency antenna of claim 8, wherein said second dielectric substrate
is fixed vertically onto an edge of said printed circuit board.
- 20 11. The dual-frequency antenna of claim 8, wherein said first and second operating
frequencies are different frequencies.